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WHAT IS CLAIMED:

1 1. A method of receiving a plurality of time spaced signals transmitted in
2 accordance with a time layout, comprising:
3 recovering a receive signal comprising a plurality of time spaced signals that
4 convey at least one intelligence signal,
5 coherently detecting the receive signal,
6 integrating, separately, a plurality of coherently detected signals to produce a
7 plurality of integrated detected signals,
8 contributing each integrated detected signal to one of a plurality of
9 intermediate signals,
10 integrating, separately, each of said plurality of intermediate signals, and
11 producing the at least one intelligence signal based on said plurality of
12 integrated signals.

1 2. The method of claim 1, wherein the intermediate signals are integrated relative
2 to a repeating time layout.

1 3. The method of claim 1, wherein the intermediate signals are integrated
2 independent of a repeating time layout.

1 4. The method of claim 1, wherein the time spaced signals are positioned in time
2 in accordance with a time hopping code.

1 5. The method of claim 1, wherein the time spaced signals are uniformly
2 positioned in time.

1 6. The method of claim 1, wherein the time spaced signals are modulated in
2 accordance with a modulation technique,

1 7. The method of claim 6, wherein the modulation technique comprises at least
2 one of:

3 time shift modulation,
4 amplitude modulation,

5 frequency modulation, and
6 phase modulation.

1 8. The method of claim 1, wherein the time spaced signals comprise pulses.

1 9. The method of claim 1, wherein the time spaced signals comprise bursts.

1 10. The method of claim 1, wherein coherently detecting the received signal
2 comprises correlating the plurality of time spaced signals with a plurality of template signals
3 at specified positions in time.

1 11. The method of claim 10, wherein a template signal comprises a pulse.

1 12. The method of claim 10, where a template signal comprises a burst.

1 13. The method of claim 1, wherein each integrated detected signal is contributed
2 in accordance with a predefined pulse interleaving order.

1 14. The method of claim 13, wherein the predefined pulse interleaving order is at
2 least one of:

3 a sequential order; and

4 a pseudorandom order.

1 15. The method of claim 1, wherein each integrated detected signal is contributed
2 in accordance with a code element of a pulse interleaving code.

1 16. The method of claim 15, wherein the pulse interleaving code is a
2 pseudorandom code.

1 17. The method of claim 15, wherein the pulse interleaving code is modified after
2 an intelligence signal is produced.

1 18. The method of claim 17, wherein said pulse interleaving code is modified in
2 accordance with a shift code.

1 19. The method of claim 1, wherein the at least one intelligence signal is produced
2 by ordering the plurality of intermediate signals in accordance with a predefined data bit
3 order.

1 20. The method of claim 17, wherein the predefined data bit order is at least one
2 of:

3 a sequential order; and
4 a pseudorandom order.

1 21. The method of claim 1, wherein the at least one intelligence signal is produced
2 by ordering the plurality of intermediate signals in accordance with code elements of a bit
3 ordering code.

1 22. The method of claim 21, wherein the bit ordering code is a pseudorandom
2 code.

1 23. The method of claim 1, further comprising the steps of:
2 determining an intermediate signal quality measure;
3 modifying an integrated detected signal contribution to the intermediate signal
4 based on the intermediate signal quality measure.

1 24. The method of claim 23, wherein modifying the integrated detected signal
2 contribution comprises:
3 modifying a pulse interleaving code and
4 coordinating the modification of the pulse interleaving code between a
5 transmitter and receiver.

1 25. The method of claim 23, wherein the integrated detected signal contribution is
2 modified based on at least one of:

3 a statistical redistribution;
4 a random redistribution, and
5 an optimal order search algorithm.

1 26. The method of claim 1 further comprising:

2 determining an intermediate signal quality measure;
3 modifying a time hopping code based on the intermediate signal quality
4 measure; and
5 coordinating the modification of the time hopping code between a transmitter
6 and receiver.

1 27. The method of claim 26, wherein the time hopping code is modified based on
2 a relationship between a plurality of codes in a code family.

1 28. The method of claim 1 further comprising:
2 determining an intermediate signal quality measure;
3 delaying a pulse train signal based on the intermediate signal quality measure;
4 and
5 coordinating the delay of the pulse train signal between a transmitter and
6 receiver.

1 29. The method of claim 28, wherein the pulse train signal is delayed based on a
2 relationship between a plurality of codes in a code family.

1 30. The method of claim 1, wherein an intermediate signal is compared to another
2 intermediate signal.

3 31. The method of claim 30, wherein an intermediate signal is used as a reference
4 relative to another intermediate signal.

1 32. The method of claim 31, wherein an intermediate signal is used as an
2 amplitude reference relative to another intermediate signal.

1 33. The method of claim 32, wherein the amplitude reference is used to
2 demodulate at least one of said plurality of time spaced signals.

1 34. The method of claim 32, wherein the amplitude reference is used to
2 synchronize in time a plurality of template signals with the plurality of received time spaced
3 signals.

1 35. The method of claim 31, wherein an intermediate signal is used as a time
2 reference relative to another intermediate signal.

1 36. The method of claim 35, wherein the time reference is used to synchronize in
2 time a plurality of template signals with the plurality of received time spaced signals.